

REMARKS

The Applicant has now had an opportunity to carefully consider the comments set forth in the Office Action mailed July 19, 2006. All of the rejections are respectfully traversed. Amendment, reexamination and reconsideration of the application are respectfully requested.

The Office Action

In the Office Action mailed July 19, 2006:

claims 1, 17, 20 and 21 were objected to for including informalities;

claims 1-3, 5, 7, 8, 16 and 20-22 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,731,314 to Cheng, et al. ("Cheng") in view of U.S. Patent No. 6, 711,147 to Barnes, et al. ("Barnes"); and

claims 4, 6, 9-15 and 17-19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng and Barnes in further view of U.S. Patent No. 6,308,565 to French, et al. ("French").

The Present Application

By way of brief review, the present application is directed toward virtual reality systems and methods wherein virtual reality environment (VRE) user equipment (VUE) includes wireless devices such that one or more mobile users at a plurality of locations may simultaneously participate in a virtual reality episode (Abstract). The systems can include elements (e.g., a VRE episode management entity (VEME), VRE episode control entities (VECE) (both serving and proxy) and VRE access systems (VAS)) that maintain information regarding the location of users and/or VRE user equipment (VUE) associated with the user, or subscriber during a virtual reality episode and communication links associated therewith and, thereby, allow a VRE episode participant to travel over a wide geographical area while participating in a virtual reality episode (e.g., FIG. 1; paragraphs 28 (page 9, lines 14-29), 35 (page 12, line 3 - page 13, line 14) and 38 (page 14, lines 6-20)). For example, a VAS provides wireless connectivity for a VUE to the virtual reality system (e.g., VAS 108, 168, 184, 144 of FIG. 1; paragraph 28 (page 9, lines 14-29)). For example, a handoff function is performed when the user and/or VUE moves between systems, where the handoff function is similar to that handoff performed when a cellular or wireless telephone moves between

cells (paragraphs 31 (page 11, lines 5-21), 35 (page 12, line 3 - page 13, line 14)).

The Cited References

In stark contrast, the primary reference of the Office Action to Cheng allegedly discloses a client computer program that provides instructions for a processor to locate and retrieve rich media and HTML files for running a three-dimensional graphical user interface. The program provides instructions for the processor to generate a three-dimensional (3D) graphical user interface on a display. Then, the processor generates a metaphorical user object for navigating and interacting in the three dimensions within the environment via navigational and interactional inputs, respectively, from a user (Abstract).

The present Office Action asserts that Cheng discloses the invention substantially as claimed and makes reference to a client computer program providing instructions for a processor to generate a three-dimensional (3D) graphical user interface on a display as discussed in the Abstract of Cheng. However, the assertion that Cheng discloses the invention substantially as claimed is respectfully traversed. Cheng is not concerned with virtual reality. Cheng is not concerned with mobile communications. Cheng is not concerned with providing a virtual reality environment to users using virtual reality environment user equipment (VUE) that is operative to capture virtual reality data. Moreover, Cheng is not concerned with providing a virtual reality environment through user equipment that is operative to capture and transmit real-world video and audio data (e.g., see amendments to claim 1).

It is respectfully submitted that the secondary references do not cure these deficiencies of Cheng.

For example, the newly cited reference to Barnes is not concerned with providing a virtual reality environment and does not disclose or suggest virtual reality user equipment that is operative to capture virtual reality data (as recited in claim 1 prior to the current amendments) or to capture and transmit real-world video and audio data (as recited in claim 1 as currently amended) or to display virtual reality data.

Instead, Barnes is concerned with a merged packet service and mobile internet protocol. Barnes allegedly discusses a network, system and method for merging a packet service, such as GPRS, with a mobile IP. The GPRS network includes a first base station for providing wireless access to a mobile node, a GPRS support node

(GSN) connected to the base station, and a security gateway for connecting the GPRS network to a second network that may use mobile IP. The GSN is capable of creating an IP tunnel connecting it to the second network to the security gateway. The GSN is also capable of handling mobile IP specific messaging in converting the wireless access to mobile IP specific messaging. It is respectfully submitted that Barnes does not disclose or suggest a virtual reality environment. Moreover, Barnes does not disclose or suggest that the mobile node is or can be characterized as virtual reality environment user equipment. It is respectfully submitted that even if Barnes discusses aspects of a mobile communications network, Barnes does not disclose or suggest a mobile virtual reality environment.

Additionally, it is respectfully submitted that there is **no motivation** in the art to combine Cheng and Barnes. Cheng and Barnes are in different fields of endeavor. It is respectfully submitted that there is no motivation in the art to combine subject matter disclosed by Cheng and subject matter disclosed by Barnes other than a motivation that could have only been gleaned from the present application.

Accordingly, it is respectfully submitted that rejection of claims in the present application in light of Cheng and Barnes are based on impermissible hindsight.

It is respectfully submitted that French does not remedy these deficiencies of Cheng.

French allegedly discloses a system and method for tracking and assessing movement skills in multidimensional space. Allegedly, French discloses accurate simulation of sport to quantify and train performance constructs by employing sensing electronics for determining, in essentially real time, the player's three-dimensional positional changes in three or more degrees of freedom (three dimensions); and computer controlled sport-specific cuing that evokes or prompts sports-specific responses from the player that are measured to provide meaningful indicia of performance. The sport-specific cuing is characterized as a virtual opponent that is responsive to, and interactive with, the player in real time. The virtual opponent continually delivers and/or responds to stimuli to create realistic movement challenges for the player (Abstract).

It is respectfully submitted that French does not disclose or suggest accessing subscription information, accessing subscription information in a remote VRE subscriber database (VSD) if a VCS communicating with a VUE is a visited VCS relative to the

VUE for handing off connectivity responsibility if required by movement of a mobile device VUE.

It is respectfully submitted that French is in yet another field of endeavor. There is no motivation in the art to combine disclosure from French with disclosure from Cheng and/or Barnes. Furthermore, it is respectfully submitted that even if French could be construed as disclosing user equipment that is operative to capture virtual reality data, French does not disclose or suggest virtual reality environment user equipment that is operative to capture real-world video and audio data.

The Claims are Formal

Claims 1, 17, 20 and 21 were objected to for including informalities.

However, **claims 1, 17, 20 and 21** have been amended to address problems of antecedence, typographical errors and the like.

Regarding **claim 1**, the repetition of the phrase --of the-- on or about line 10 has been deleted. Additionally, the word --respective--, identified by the Office Action as being on line 13, has been deleted. Additionally, five instances of the word --said-- have been removed from **claim 1**.

In **claim 17**, two instances of the word --respective-- have been deleted. Additionally, parenthetical abbreviations have been added for improved readability.

In **claim 20**, two incorrect instances of abbreviation --(VDS)-- have been replaced with the correct abbreviation --(VSD)--. Additionally, the phrase --of the-- and the word --respective-- have been removed from the recitation related to the virtual reality environment access system.

In **claim 21**, --VDS-- has again been replaced with --VSD--. Additionally, errors in antecedence, spelling and punctuation have been corrected.

Claims 1, 17, 20 and 21 are formal and withdrawal of the objections to **claims 1, 17, 20 and 21** is respectfully requested.

The Claims are not Obvious

Claims 1-3, 5, 7, 8, 16 and 20-22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng in view of Barnes.

However, as indicated above, it is respectfully submitted that there is no motivation in the art to combine Cheng and Barnes. It is respectfully submitted that the

motivation suggested by the Office Action is specious. That is, the Office Action asserts that “one would be motivated to do so in order to allow a mobile node to seamlessly roam between networks.” However, allowing a mobile node to seamlessly roam between networks is an alleged advantage of Barnes on its own (column 5, lines 65-67). Accordingly, it is respectfully submitted there is no motivation to combine subject matter from Cheng with subject matter from Barnes to achieve seamless roaming of a mobile node, and the Office has not met its burden of presenting a *prima facie* case of obviousness.

For at least the foregoing reasons, **claims 1-3, 5, 7, 8, 16 and 20-22** are not obvious in light of Cheng and Barnes.

Additionally, it is respectfully submitted that Cheng and Barnes do not disclose or suggest all of the elements for which they are relied.

For example, the specification of Barnes does not include the phrase --virtual reality-- or any word or phrase of similar meaning.

The phrase --virtual reality-- occurs only one time in the specification of Cheng. That occurrence is in column 22 as part of a definition of the word --Codec-- in a list of the kinds of files for which compression and, therefore, codecs (compression/decompression), can be applied. Clearly, Cheng is not directed toward virtual reality systems.

Accordingly, it is respectfully submitted that it would not be obvious for one concerned with providing a virtual reality environment or allowing mobile participation in a virtual reality environment would not look to Cheng and/or Barnes.

Furthermore, since Cheng and Barnes are not concerned with virtual reality environments or providing for mobile user participation in virtual reality environments, Cheng and Barnes do not disclose or suggest the elements recited in the claims of the present application.

For example, regarding **claim 1**, the Office Action relies on element 8 of FIG. 2 and column 4, lines 14-15, of Cheng for disclosure of one or more virtual reality environment user equipment operative to capture and display virtual reality data. However, element 8 of FIG. 2 is a “Muse Client (Muse Browser)”, column 4, lines 14-15, merely indicate that one component of a “Muse Environment” is a real-time, 3D multi-user application known as the Muse Client or Muse Browser 8. It is respectfully submitted that nothing in the cited portions of Cheng disclose or suggest virtual reality

environment user equipment or virtual reality user equipment that is capable of capturing virtual reality data. Moreover, Cheng and Barnes do not disclose or suggest virtual reality environment user equipment operative to capture and transmit real-world video and audio data as recited in currently amended **claim 1**.

For at least the foregoing reasons, the Office has not met its burden for presenting a *prima facie* case of obviousness and **claim 1**, as well as **claims 2-8**, which depend therefrom, is not anticipated and is not obvious in light of Cheng and Barnes.

In support of the assertion that Cheng discloses a virtual reality environment episode management entity (VEME), which is in communication with at least one virtual reality core system (VCS) and is operative to forward virtual reality data representing an actual physical environment to the at least one virtual reality user equipment (VUE), thereby facilitating a virtual reality episode, the Office Action directs the attention of the Applicant to element 10 of FIG. 2 and column 12, lines 54-62. However, FIG. 2 merely identifies element 10 as a "Muse Interactivity Server." The cited portion of column 17, simply indicates that "upon connection to the Interactivity Server 10 and the Rrowser 8 will arbitrate a number of parameters and then allow communication through the Muse Communication Protocol 26. One of the first messages to be transferred to the Browser 8 will be a specification of the content on the Interactivity Server 10 and the current state of the content. Soon after this, messages about all of the neighboring users on the Interactivity Server 10 are sent to the Browser 8. At this point, the Browser 8 enters its normal interactive state." It is respectfully submitted that the cited portion of column 17 does not disclose or suggest a virtual reality environment episode management entity (VEME). The cited portion of column 17 does not disclose or suggest a virtual reality core system (VCS). The cited portion of column 17 does not disclose or suggest virtual reality data or virtual reality data representing an actual physical environment. The cited portion of column 17 does not disclose or suggest forwarding virtual reality data representing an environment to at least one virtual reality environment user equipment (VUE). Accordingly, the cited portion of column 17 does not disclose or suggest a virtual reality environment episode management entity (VEME) which is communication with the at least one virtual reality environment core system (VCS) and is operative to forward virtual reality data representing an environment to the at least one VUE, thereby facilitating a virtual reality episode.

For at least the foregoing additional reasons, the Office has not met its burden of

presenting a *prima facie* case of obviousness and **claim 1**, as well as **claims 2-8**, which depend therefrom, is not anticipated and is not obvious in light of Cheng and Barnes.

Additionally, the Office Action stipulates that Cheng does not disclose the use of local and remote network locations. Accordingly, it is respectfully submitted that Cheng cannot disclose or suggest at least one virtual reality core system wherein the core system is in communication with at least two virtual reality environment subscriber databases (VSD), one of which has a relatively local location and at least one of which has a relatively remote location: the virtual reality environment core system being in wireless communication with the at least one VUE, core system being operative to access the relatively local VSD, to retrieve respective subscription information of the at least one VUE if the core system is a respective home core system of the at least one VUE, and to access at least one of the at least one relatively remotely located VSD to retrieve respective subscription information of the at least VUE if the core system is a visited virtual reality core system relative to the at least one VUE as recited, for example, in **claim 1** of the present application.

Furthermore, Barnes does not disclose or suggest the subject matter for which it is relied.

The Office Action directs the attention of the Applicant to elements 20 and 28 of FIG. 4 and column 8, line 12, of Barnes in support of the assertion that Barnes discloses a core system in communication with at least two virtual reality subscriber databases, one of which has a relatively local location and at least one of which has a relatively remote location. However, reference numeral 20 of FIG. 4 identifies a home location register associated with processing conventional wireless telephone calls (column 2, lines 3-9), which is enhanced to include Global Packet Radio Services (GPRS) subscription data (column 2, lines 9-10; column 1, lines 31-32). Reference numeral 286 identifies a visitor location register (VLR). Barnes indicates that the VLR 286 has a MAP interface to the HLR 20 of the GPRS network 250. The VLR 286 may be a component of the GSN/FA 284 or may be separated therefrom. The VLR 286 may also (alternatively) be associated with an MSC (not shown) (column 8, lines 25-30; column 2, line 7).

Column 8, line 12, of Barnes recites "is a database (like the HLR 20) that in some embodiments". Column 8, lines 11-13, indicate that the directory authorization policy is a database (like the HLR 20) that in some embodiments is part of the home agent 270.

It is respectfully submitted that elements 20 and 286 of FIG. 4 and the cited portion of column 8 do not disclose or suggest a virtual reality environment. The cited portions of Barnes do not disclose or suggest a virtual reality environment subscriber database. Moreover, the cited portions of Barnes do not disclose or suggest two virtual reality subscriber databases.

Accordingly, Barnes does not disclose or suggest the subject matter for which it is relied and the Office has not met its burden presenting a case of *prima facie* obviousness.

For at least the foregoing additional reasons, **claim 1**, as well as **claims 2-8**, which depend therefrom, is not anticipated and is not obvious in light of Cheng and Barnes.

With regard to a virtual reality environment core system being in wireless communication with at least one VUE, the Office Action refers to column 7, lines 24-26, of Barnes. However, the cited portion of Barnes merely indicates that the GPRS network 250 connects to the base station 16A, 16B which are capable of establishing a wireless link with the mobile node 12. It is respectfully submitted that the cited portion of Barnes does not disclose or suggest that the mobile node 12 is a VUE (virtual reality environment user equipment). Moreover, the cited portion of Barnes does not disclose or suggest anything relative to a virtual reality environment core system (VCS). Furthermore, the cited portion of Barnes does not disclose or suggest a virtual reality environment core system being in wireless communication with at least one VUE.

For at least the foregoing additional reasons, Barnes does not disclose or suggest the subject matter for which it is relied and the Office has not met its burden of presenting a case of *prima facie* obviousness.

With regard to accessing at least one of the relatively remotely located VSD to retrieve respective subscription information of the at least one VUE, if the core system is a respective visited virtual reality core system relative to the at least one VUE, the Office Action directs the attention of the Applicant to column 12, line 55 - column 3, line 1. However, the cited portion of Barnes does not refer to subscription information. The cited portion of Barnes does not refer to a virtual reality environment subscriber database (VSD). The cited portion of Barnes does not disclose or suggest subscription information of at least one VUE. The cited portion does not even refer to element 20 or element 286 of Barnes (which the Office Action characterizes as VSD). Accordingly, it

is respectfully submitted that the cited portion of Barnes does not disclose or suggest accessing at least one relatively remotely located VSD to retrieve respective subscription information of the at least one VUE if the core system is a respective visited virtual reality core system relative to the at least one VUE.

For at least the foregoing additional reasons, the Office has not met its burden of presenting a case of *prima facie* obviousness and **claim 1**, as well as **claims 2-8**, which depend therefrom, is not anticipated and is not obvious in light of Cheng and Barnes.

Regarding **claim 2**, the Office Action directs the attention of the Applicant to column 10, lines 45-47. However, the cited portion indicates that an underlying mechanism involves: encoding the data to a network-friendly representation and sending the data across the network to one or many other machines. It is respectfully submitted that nothing in column 10, lines 45-47, discloses or suggests virtual reality user equipment is operative to capture virtual reality data in real time.

Accordingly, the Office has not met its burden of presenting a *prima facie* case of obviousness and **claim 2** is not anticipated and is not obvious in light of Cheng and Barnes.

With regard to **claim 3**, even if column 4, lines 14-15, of Cheng indicate that the Muse Environment includes a real-time, 3D, multi-user application, it is respectfully submitted that Cheng does not disclose or suggest a virtual reality environment or a virtual reality environment user equipment that is operative to display virtual reality data in real time.

With regard to **claim 5**, even if lines 25-27 of column 4 indicate that the Muse Browser allows users to view and interact with 3D content and other users through a number of mechanisms, column 4, lines 25-27, does not disclose or suggest a virtual reality system or that a virtual reality episode is conducted between a plurality of virtual reality environment user equipment.

With regard to **claim 7**, even if column 19, line 29, mentions a database of the Muse Community Servers and even if lines 28-31 indicate that some information will require strict authentication to access, it is respectfully submitted that column 19, lines 18-43, does not disclose or suggest a virtual reality system where one of the at least one virtual reality core systems comprises a virtual reality entity subscription database.

With regard to **claim 8**, even if element 10 of FIG. 2 of Cheng depicts a Muse Interactivity Server, Cheng does not disclose or suggest a virtual reality system where

the virtual reality episode management unit is located within one of the at least one virtual reality environment core systems.

For at least the foregoing additional reasons, it is respectfully submitted that **claims 3, 5, 7 and 8** are not anticipated and are not obvious in light of Cheng and Barnes.

With regard to **claim 16**, the assertion that Cheng discloses a virtual reality system that enables the real time conduction of a virtual reality episode is respectfully traversed. An indication that a "Network API - provides for access to existing protocol servers such as HTTP and FTP, as well as real time screening data" found at column 5, lines 39-41, cited by the Office Action, does not disclose or suggest a virtual reality system or a virtual reality system that enables the real time conduction of a virtual reality episode.

Additionally, arguments similar to arguments submitted in support of **claim 1** are submitted in support of **claim 16**. There is no motivation in the art to combine Cheng and Barnes. The motivation suggested by the Office Action, "in order to allow a mobile node to seamlessly roam between networks is an alleged advantage of Barnes on its own" (column 5, lines 65-67). Accordingly, there is no motivation to combine Barnes with Cheng to achieve this goal. Cheng and Barnes do not disclose or suggest all of the elements recited in **claim 16**. For example, the indication at column 4, lines 14-15, that the major software components of the system of Cheng includes a real-time, 3D, multi-user application known as a Muse Client or Muse Browser 8 (depicted in FIG. 2) does not disclose or suggest at least one virtual reality environment user equipment operative to capture virtual reality data of actual physical environments.

Column 10, lines 35-38, cited by the Office Action, indicate that Muse has designed an object-oriented message passing protocol 26, an illustrative mechanism of which is shown at FIG. 9, to enable simple communication of data between a Muse Browser and a Muse Interactive Server 10, a Muse Community Server 12 and other Muse Browsers 8. However, the cited portion of column 10 does not disclose or suggest at least one virtual reality core system having the features and functions recited in **claim 16**.

The indication at column 16, lines 48-49, cited by the Office Action, that the administrative aspects of the Muse Interactive Server APIs include the ability to authenticate access to different parts of the Muse site being served does not disclose or

suggest a virtual reality environment core system (VCS) where the at least one VCS has a preexisting relationship with one of the at least one VUE and the at least one user. Additionally, as discussed above, lines 54-62, of column 17, do not disclose or suggest a virtual reality environment episode management entity (VEME), in communication with at least one user and at least one VCS, where the VEME forwards real time virtual reality data representative of an actual physical environment to at least one VUE associated with the at least one user. Indeed, nothing in the discussion of arbitration, communication and exchange of messages in the cited portion of column 17 discloses or suggests anything to do with data representative of an **actual physical environment**.

Additionally, the Office Action stipulates that Cheng does not disclose the use of local and remote network locations, which is taken to be a stipulation that Cheng does not disclose or suggest a plurality of VAS wherein responsibility for providing connectivity being handed off from a first respective VCS to a second respective VCS if the respective ones of the at least one VUE move out of a first geographic region served by the first respective VCS and into a second geographic region that is served by the second respective VCS as recited in **claim 16**.

The Office Action appears to rely on Barnes for this disclosure. However, in this regard, the Office Action cites portions of columns 7 and 12 and makes similar assertions to those presented by the Office Action and discussed above in reference to **claim 1**. Accordingly, in this regard, arguments similar to those submitted in support of **claim 1**, with regard to the cited portions of column 7 and column 12, are submitted in support of **claim 16**.

For at least the foregoing additional reasons, **claim 16** is not anticipated and is not obvious in light of Cheng and Barnes.

With regard to **claim 20**, the Office Action makes the same assertions with regard to the motivation to combine Cheng and Barnes as have been addressed above with regard to **claims 1** and **16**. Accordingly, arguments related to the lack of motivation to combine that are similar to those made with regard to **claims 1** and **16** are submitted in support of **claim 20**.

Additionally, in explaining the rejection of **claim 20**, the Office Action directs the attention of the Applicant to portions of columns 17 and 19 of Cheng that were cited in explaining the rejections of **claims 1** and **7**. Accordingly, in this regard, arguments

similar to those submitted in support of **claim 1** and **7** are submitted in support of **claim 20**.

Furthermore, the Office Action stipulates that Cheng does not disclose the use of local and remote network locations and, once again, relies on the portions of FIG. 4, column 7, column 8 and column 12 that were cited in explaining the rejection of **claim 1**. Accordingly, in this regard, arguments similar to those submitted in support of **claim 1** are submitted in support of **claim 20**.

For at least the foregoing additional reasons, **claim 20**, as well as **claim 21**, is not anticipated and is not obvious in light of Cheng and Barnes.

Regarding **claim 21**, the Office Action cites portions of FIG. 2, column 17 and columns 19 and 20 of Cheng and makes assertions similar to those made in explaining the rejections of **claims 1** and **16**. Accordingly, in this regard, arguments similar to those submitted in support of **claims 1** and **16** with regard to the disclosure of Cheng are submitted in support of **claim 21**.

With regard to **claim 22**, the Office Action repeats the assertions related to Cheng that were presented in regard to **claim 21** and asserts that Barnes teaches a gateway entity that is operative to provide boundary entity services that facilitate a communication of messages between the VECE and the at least one additional VECE, the boundary entity services including at least one of firewall services, hiding underlying network structure, facilitating the flow and routing of virtual reality episode control signals and translated signals between elements of the system and directs the attention of the Applicant to Barnes, FIG. 4, element 264 and column 8, line 63 - column 9, line 3.

However, with regard to Cheng, arguments similar to those submitted in support of **claim 20** are submitted in support of **claim 21**. Additionally, even if Barnes discloses a security gateway 264, the discussion of an IP security gateway 264 utilizing conventional IP security functionality (as a replacement to the boarder gateway 206 of FIG. 3), such as a security parameters index found at the cited portion of column 8, does not disclose or suggest firewall services, hiding underlying network structure, facilitating the flow and routing of virtual reality episode control signals or translating signals between elements of the system. Moreover, Barnes does not disclose or suggest a VECE and at least one additional VECE.

Additionally, **claim 22** has been amended to recite a virtual reality environment gateway.

For at least the foregoing additional reasons, **claim 22** is not anticipated and is not obvious in light of Cheng and Barnes.

Claims 4, 6, 9-15 and 17-19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng and Barnes in view of French.

However, there is no motivation in the art to combine Cheng, Barnes and French. It is respectfully submitted that French is concerned with yet another area of endeavor from that of Cheng and that of Barnes. The lack of motivation to combine Cheng and Barnes has been discussed above. Accordingly, there can be no motivation to combine yet a third reference with Cheng and Barnes.

Additionally, the alleged motivation regarding the further combination of French with Cheng and Barnes is specious. French does not disclose or suggest modeling physical locations. Accordingly, one would not be motivated to combine French with Cheng and Barnes in order to model physical locations. In support of the assertion that French discloses an actual physical environment, the Office Action directs the attention of the Applicant to column 9, lines 6-9. However, the cited portion of column 9 is concerned with the overall position of a player and not with elements of the physical space. The system of French is concerned with determining, in essentially real time, the players' three-dimensional position changes in three or more degrees of freedom (column 4, lines 45-47).

Furthermore, it is respectfully submitted that any motivation to combine subject matter from Cheng, Barnes and French can only have been gleaned from the present application. Accordingly, the rejections of **claims 4, 6, 9-15 and 17-19** are based on impermissible hindsight.

Additionally, the original subject matter recited in **claim 4** was made somewhat redundant by amendments to **claim 1**. Accordingly, **claim 4** has been amended to recite the virtual reality system of **claim 1** further comprising: at least one additional VUE in hardwired communication with at least one of the at least one VCS. It is respectfully submitted that the amendment to **claim 4** is supported throughout the specification including, for example, paragraph 8 and paragraph 28.

Claim 4 depends from **claim 1** and is not anticipated and is not obvious for at least that reason.

With regard to **claim 6**, the Office Action stipulates that the combination of Cheng and Barnes does not explicitly teach the rendering of a physical environment.

However, **claim 6** is not concerned with rendering a physical environment. **Claim 6** recites a virtual reality access system (VAS), wherein the virtual reality environment access system facilitates the wireless communication of the at least one virtual reality environment user equipment with the at least one virtual reality environment core system.

Clarification is respectfully requested. Additionally, it is respectfully submitted that Cheng, Barnes and French do not disclose or suggest the subject matter of **claim 6**. Accordingly, **claim 6** is not anticipated and is not obvious in light of Cheng, Barnes and French.

Arguments with regard to the lack of motivation to combine Cheng, Barnes and French similar to those submitted above are submitted with regard to **claim 9**. Additionally, the assertions of the Office Action regarding the disclosures of Cheng and Barnes with respect to **claim 9** are respectfully traversed for reasons similar to those submitted above with regard to, for example, **claims 1 and 16**.

Furthermore, the Office Action stipulates that the combination of Cheng and Barnes does not disclose “the rendering of a physical environment.” The Office Action relies on French for this disclosure. However, **claim 9 does not recite rendering a physical environment**. **Claim 9 does** recite receiving real time virtual reality data at a virtual reality environment episode management entity, wherein the virtual reality data is representative of an actual physical environment. It is respectfully submitted that **French does not disclose or suggest receiving real time virtual reality data representative of an actual physical environment**. FIG. 2, cited by the Office Action, is a perspective view showing a representative monitor display (column 7, lines 58-59). FIG. 2 does not disclose or suggest receiving real time virtual reality data at a virtual reality environment episode management entity, wherein the virtual reality data is representative of an **actual physical environment**. Column 9, lines 6-9, cited by the Office Action, indicates that “the overall position of **the player** in the physical space 12 is represented and correctly referenced in the virtual space 70 by a player icon 32. Column 9, lines 9-13, goes on to indicate that the overall position **of the player** will be understood as the position **of the player’s** body as a whole, which may be the position **of the player’s** center of mass, or may be the position of some part **of the player’s** body.

It is respectfully submitted that French does not disclose or suggest that the

virtual space 30 is generated based on any real time data received regarding the physical space 12. It is respectfully submitted that since French is unconcerned with mobility as the term is used in the present application, the player 36 is confined, for the period of participation in the use of the system of French, to the defined physical space 12 (column 9, line 6). Accordingly, it is respectfully submitted that the virtual space 30 can be predefined or configured and there is no reason to receive real time data regarding the physical space 12 of French. Therefore, it is respectfully submitted that French does not disclose or suggest receiving real time data regarding a physical environment.

For at least the foregoing additional reasons, **claim 9** is not anticipated and is not obvious in light of Cheng, Barnes and French.

With regard to **claim 10**, the assertion of Office Action with regard to the disclosure of Cheng is respectfully traversed. It is respectfully submitted that disclosure of a Muse Software Platform allowing “creation of 3D content connected “on-the-fly” based on user input” found at column 8, lines 25-26, and cited by the Office Action, does not disclose or suggest capturing in real time virtual reality data representative of an **actual physical environment** prior to receiving the real time virtual reality data at a virtual reality environment episode management entity. It is respectfully submitted that it is unclear what “creation of 3D content connected “on-the-fly” based on user input” means. However, it is respectfully submitted that it could mean generating a fantasy environment based on a mouse movement or keyboard key presses. In any event, the cited portion of Cheng includes no disclosure or suggestion related to an **actual physical environment**.

Accordingly, it is respectfully submitted that the Office has not met its burden of presenting a *prima facie* case of obviousness with regard to **claim 10**.

For at least the foregoing additional reasons, **claim 10** is not anticipated and is not obvious in light of Cheng, Barnes and French.

Regarding **claim 11**, the assertions of the Office Action with regard to the disclosure of Cheng are respectfully traversed. The mere mention of the word --audio-- or even the entire phrase “specification of the representation (3D, audio, etc.) of the Muse cite being served” found at column 16, lines 50-51, cited by the Office Action, does not disclose or suggest capturing in real time virtual reality data comprises capturing real time audio associated with the actual physical environment.

For at least the foregoing additional reasons, the Office has met its burden of presenting a *prima facie* case of obviousness and **claim 11** is not anticipated and is not obvious in light of Cheng, Barnes and French.

With regard to **claim 12**, the assertions of the Office Action with regard to the disclosure at column 18, lines 25-26, are respectfully traversed. As indicated above, with regard to **claim 10**, disclosure related to "creation of 3D content connected "on-the-fly" based on user input" does not disclose or suggest capturing in real time virtual reality data comprising capturing in real time a virtual reality data representative of an actual physical environment. With regard to the assertions of the Office Action related to Barnes, arguments similar to those submitted above with regard to, for example, **claims 1 and 16**, are submitted in support of **claim 12**. With regard to the assertion of the Office Action that French discloses capturing in real time virtual reality data comprises capturing in real time virtual reality data representative of an actual physical environment located geographically distant from the VRE user equipment are respectfully traversed.

Column 9, lines 4-22, of French, cited by the Office Action, do not disclose or suggest capturing in real time virtual reality data representative of an actual physical environment. Moreover, the cited portion of column 9 does not disclose or suggest capturing in real time virtual reality data representative of an actual physical environment located geographically distant from the VRE user equipment. Instead, at lines 6-9 of column 9, French indicates that the overall position of the player in the physical space 12 is represented and correctly referenced in a virtual space 30 by a player icon 32. The only physical space discussed is the physical space 12, depicted, for example, in FIG. 2 and FIG. 3 wherein the player 36 is depicted as standing. Accordingly, the only physical space discussed by French is not located geographically distant from the user or VRE user equipment (VUE).

For at least the foregoing additional reasons, the Office has not met its burden of presenting a *prima facie* case of obviousness and **claim 12** is not anticipated and is not obvious in light of Cheng, Barnes and French.

Claims 13 and 14 depend from **claim 9** and are patentably distinct and not obvious for at least that reason.

With regard to **claim 15**, the assertions of the Office Action with regard to the disclosure of Cheng are respectfully traversed. Column 18, line 55 - column 19, line 2,

list a number or reasons a Muse Browser will connect to a community server. Of the listed "reasons," two include the word --locations-- or --location--. Those "reasons" are WebWrap cite locations and Muse location (Muse cite and latitude/longitude). It is respectfully submitted that a WebWrap is not virtual reality environment user equipment. Additionally, it is respectfully submitted that a Muse cite is not virtual reality environment user equipment.

Accordingly, the cited portion of Cheng does not disclose or suggest determining the location of VRE user equipment (VUE) comprises querying a database for the location of the VRE user equipment. Furthermore, it is respectfully submitted that the cited portion of Cheng does not disclose or suggest any activity related to the reasons of WebWrap location or Muse cite location involve querying a database.

Accordingly, it is respectfully submitted that the Office has not met its burden of presenting a *prima facie* case of obviousness and **claim 15** is not anticipated and is not obvious in light of Cheng, Barnes and French.

With regard to **claim 17**, arguments similar to those submitted above with regard to, for example, **claims 1, 16** and **9-12** are submitted in support of **claim 17**. There is no motivation to combine Cheng, Barnes and French other than that gleaned from the present application. Accordingly, the rejection of **claim 17** is based on impermissible hindsight.

Additionally, the cited references do not disclose or suggest capturing virtual reality data representing an **actual physical environment**. Barnes is not concerned with virtual reality and does not disclose or suggest any of the virtual reality system elements for which it is relied. Additionally, the assertions of the Office Action with regard to French and **claim 17** are respectfully traversed. FIG. 2 and column 9, lines 6-9, do not disclose or suggest a method of participating in a real time virtual reality episode comprising providing a virtual reality environment user equipment, where the virtual reality user equipment captures virtual reality data representing an **actual physical environment** associated with a first user. Column 9, lines 6-9, discuss the overall position of a player in a physical space 12 and do not disclose or suggest capturing real time virtual reality data representing the physical space or an actual physical environment. While column 8, lines 54-58, mention that the system 10 comprises a three-dimensionally defined physical space 12 in which the player moves, and a wireless position tracking system 13 which includes a pair of laterally spaced

wireless optical sensors 14, 16 coupled to a processor 18, French does not disclose or suggest wirelessly transmitting the virtual reality data from the second VAS to the second user as authorized by the subscription information associated with the second user, or the second VAS and the second user are geographically remote from the first user. French does not disclose or suggest virtual reality environment access systems (VAS). The use of the word --wireless-- cited by the Office Action merely refers to the wireless nature of optical sensors and French does not disclose or suggest wireless transmission of information to a second user. Accordingly, French does not disclose or suggest the wireless transmission recited in **claim 17**.

For at least the foregoing additional reasons, the Office has not met its burden of presenting a case of *prima facie* obviousness and **claim 17** is not anticipated and is not obvious in light of Cheng, Barnes and French.

Claims 18 and 19 depend from **claim 17** and are patentably distinct and are not obvious for at least those reasons.

Telephone Interview

In the interests of advancing this application to issue the Applicant(s) respectfully request that the Examiner telephone the undersigned to discuss the foregoing or any suggestions that the Examiner may have to place the case in condition for allowance.

CONCLUSION

Claims 1-22 remain in the application. **Claims 1-4, 6-17 and 19-22** have been amended. For at least the foregoing reasons, the claims are in condition for allowance. Accordingly, an early indication thereof is respectfully requested.

Respectfully submitted,

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October 18, 2006
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Under 37 C.F.R. § 1.8, I certify that this Amendment is being

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